



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/669,162A
Source: FWO
Date Processed by STIC: 5/9/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

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Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: <u>10/669,162A</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <input type="checkbox"/> Wrapped Nucleics <input type="checkbox"/> Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino <input type="checkbox"/> Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input checked="" type="checkbox"/> Variable Length	Sequence(s) <u>6, 7, 8, 9, maybe more</u> contain h's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 <input type="checkbox"/> "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> <input type="checkbox"/> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 <input type="checkbox"/> "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	

AMC - Biotechnology Systems Branch - 09/09/2003

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IFWL

RAW SEQUENCE LISTING

DATE: 05/07/2004

PATENT APPLICATION: US/10/669,162A

TIME: 14:10:39

Input Set : A:\250060016U2.txt

Output Set: N:\CRF4\05072004\J669162A.raw

3 <110> APPLICANT: Breaker, Ronald R.
 4 Nahvi, Ali
 5 Sudarsan, Narasimhan
 6 Ebert, Margaret S.
 7 Winkler, Wade
 8 Barrick, Jeffrey E.
 9 Wickiser, John K.
 11 <120> TITLE OF INVENTION: RIBOSWITCHES, METHODS FOR THEIR USE, AND
 12 COMPOSITIONS FOR USE WITH RIBOSWITCHES
 14 <130> FILE REFERENCE: 25006.0016U2
 16 <140> CURRENT APPLICATION NUMBER: 10/669,162A
 17 <141> CURRENT FILING DATE: 2003-09-22
 19 <150> PRIOR APPLICATION NUMBER: 60/412,468
 20 <151> PRIOR FILING DATE: 2002-09-20
 22 <160> NUMBER OF SEQ ID NOS: 377
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 202
 28 <212> TYPE: RNA
 29 <213> ORGANISM: Escherichia coli
 31 <400> SEQUENCE: 1
 32 gccgguccug ugaguuaua gggauuccag ugcgaaucug gagcugacgc gcagcgguaa 60
 33 ggaaaggugc gaugauugcg uuaugcggac acugccauuc ggugggaagu caucaucucu 120
 34 uaguaucuaa gauacccuc caagcccga gaccugccgg ccaacgucgc aucugguucu 180
 35 caucaucgcg uauauugau ga 202
 37 <210> SEQ ID NO: 2
 38 <211> LENGTH: 165
 39 <212> TYPE: RNA
 40 <213> ORGANISM: Escherichia coli
 42 <220> FEATURE:
 43 <221> NAME/KEY: misc_feature
 44 <222> LOCATION: 155
 45 <223> OTHER INFORMATION: r = a or g
 47 <220> FEATURE:
 48 <221> NAME/KEY: misc_feature
 49 <222> LOCATION: 157
 50 <223> OTHER INFORMATION: y = c or (t/u)
 52 <400> SEQUENCE: 2
 53 ggaaccaaac gacucggggu gcccuucugc gugaaggcug agaaauaccc guaucaccug 60
 54 aucuggauaa ugccagcgua gggaagucac ggaccaccag gucauugcu cuucacguua 120
 55 uggcaggagc aaacuaugca agucgaccug cuggruycag cgcaa 165
 57 <210> SEQ ID NO: 3
 58 <211> LENGTH: 240

ppr 1-7

u only. 't' cannot appear in an RNA sequence.

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TIME: 14:10:39

Input Set : A:\250060016U2.txt

Output Set: N:\CRF4\05072004\J669162A.raw

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59 <212> TYPE: RNA
60 <213> ORGANISM: Escherichia coli
62 <220> FEATURE:
63 <221> NAME/KEY: misc_feature
64 <222> LOCATION: (155)...(240)
65 <223> OTHER INFORMATION: n = g, a, c, or t/u
67 <400> SEQUENCE: 3
68 ggaauugcccc auuugcgggg cuaauuucuu gucggagugc cuuaacuggc ugagaccguu 60
69 uauucgggau ccgcgggaacc ugauccaggu aaauccugcg aagggaaaca gaguuaauuc 120
-> 70 gcuauccgau cgccccugcg gcgaucgucu cuugnnnnnn nnnnnnnnnn nnnnnnnnnn 180
71 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
73 <210> SEQ ID NO: 4
74 <211> LENGTH: 165
75 <212> TYPE: RNA
76 <213> ORGANISM: Escherichia coli
78 <220> FEATURE:
79 <221> NAME/KEY: misc_feature
80 <222> LOCATION: 65, 74, 107, 130
81 <223> OTHER INFORMATION: s = g or c
83 <220> FEATURE:
84 <221> NAME/KEY: misc_feature
85 <222> LOCATION: 25, 26, 34, 35, 64, 75, 106, 131
86 <223> OTHER INFORMATION: w = a or t/u
88 <400> SEQUENCE: 4
89 ggaaccaaac gacucggggg gcccwucgc gugwggcgug agaaauaccc guaucaccug 60
90 aucwsgauaa ugcswgcgua gggaagucac ggaccaccag gucauwsuu cuucacguua 120
91 uggcaggags waacuaugca agucgaccug cuggauccag cgcaa 165
93 <210> SEQ ID NO: 5
94 <211> LENGTH: 176
95 <212> TYPE: RNA
96 <213> ORGANISM: Artificial Sequence
98 <220> FEATURE:
99 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
100     synthetic construct
102 <220> FEATURE:
103 <221> NAME/KEY: misc_feature
104 <222> LOCATION: (39)...(156)
105 <223> OTHER INFORMATION: n = g, a, c or t/u
107 <400> SEQUENCE: 5
-> 108 ggaauaagc cguagguugc gaaagcgacc cugaguagnn nnnnncaaga gaagcagagg 60
109 gacuggcccg acgaagcuuc agcaaccggu guaauggcga ucagccauga ccaaggugcu 120
110 aaauccagca agcucgaaca gcuuggaagn nnnnnncgaa acgguagcga gagcuc 176
113 <210> SEQ ID NO: 6
114 <211> LENGTH: 97
115 <212> TYPE: RNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
120     synthetic construct

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TIME: 14:10:39

Input Set : A:\250060016U2.txt

Output Set: N:\CRF4\05072004\J669162A.raw

122 <220> FEATURE:
 123 <221> NAME/KEY: misc_feature
 124 <222> LOCATION: 1, 6, 26, 58, 66, 76, 97
 125 <223> OTHER INFORMATION: n = a variable number of any nucleotide
 127 <220> FEATURE:
 128 <221> NAME/KEY: misc_feature
 129 <222> LOCATION: 5, 7, 8, 11, 12, 18-20, 24, 25, 29, 30, 33-35, 38, 40, 41,
 130 47, 50, 54-56, 59, 60, 75, 77-79, 85, 89, 93
 131 <223> OTHER INFORMATION: n = g, a, c or t/u
 133 <220> FEATURE:
 134 <221> NAME/KEY: misc_feature
 135 <222> LOCATION: 27, 36, 48, 53, 57, 80, 87
 136 <223> OTHER INFORMATION: r = a or g
 138 <220> FEATURE:
 139 <221> NAME/KEY: misc_feature
 140 <222> LOCATION: 67, 83
 141 <223> OTHER INFORMATION: y = c or t/u
 143 <400> SEQUENCE: 6
 > 144 nggunnnnaa nngggaannn ggunnrrann cccnnrcngn ncccgcncn guinnrrnn 60
 145 cacugnyggg aaggnnnnnr agycngrana ccngcen 97
 147 <210> SEQ ID NO: 7
 148 <211> LENGTH: 56
 149 <212> TYPE: RNA
 150 <213> ORGANISM: Artificial Sequence
 152 <220> FEATURE:
 153 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 154 synthetic construct
 156 <220> FEATURE:
 157 <221> NAME/KEY: misc_feature
 158 <222> LOCATION: 7, 50
 159 <223> OTHER INFORMATION: d = g, a or (u)
 161 <220> FEATURE:
 162 <221> NAME/KEY: misc_feature
 163 <222> LOCATION: 1, 8, 15, 36, 56
 164 <223> OTHER INFORMATION: n = a variable number of any nucleotide
 166 <220> FEATURE:
 167 <221> NAME/KEY: misc_feature
 168 <222> LOCATION: 2-5, 17-20, 21-24, 30-34, 38-40, 41-43, 45-47
 169 <223> OTHER INFORMATION: n = g, a, c or t/u
 171 <220> FEATURE:
 172 <221> NAME/KEY: misc_feature
 173 <222> LOCATION: 54
 174 <223> OTHER INFORMATION: r = a or g
 177 <400> SEQUENCE: 7
 > 178 nnnngdncu gaganannnn nnnnaccugn nnnncunnnn nngnnncgd aggran 56
 180 <210> SEQ ID NO: 8
 181 <211> LENGTH: 97
 182 <212> TYPE: RNA
 183 <213> ORGANISM: Artificial Sequence

variable length not permitted
 (see item 5 on
 Error
 Summary
 sheet)

see item 5 on Error Summary
 sheet

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Input Set : A:\250060016U2.txt

Output Set: N:\CRF4\05072004\J669162A.raw

185 <220> FEATURE:
 186 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 187 synthetic construct
 189 <220> FEATURE:
 190 <221> NAME/KEY: misc_feature *u*
 191 <222> LOCATION: 57, 62
 192 <223> OTHER INFORMATION: k = g or *t/u*
 194 <220> FEATURE:
 195 <221> NAME/KEY: misc_feature *item 5*
 196 <222> LOCATION: 37, 47
 197 <223> OTHER INFORMATION: n = a variable number of any nucleotide
 199 <220> FEATURE:
 200 <221> NAME/KEY: misc_feature
 201 <222> LOCATION: 11, 17, 20, 28, 36, 46, 48, 58, 61, 77-79
 202 <223> OTHER INFORMATION: n = g, a, c or *t/u* *u*
 204 <220> FEATURE:
 205 <221> NAME/KEY: misc_feature
 206 <222> LOCATION: 6, 35, 43, 54, 59, 65-68, 74, 90, 91, 95-97
 207 <223> OTHER INFORMATION: r = a or g
 209 <220> FEATURE:
 210 <221> NAME/KEY: misc_feature
 211 <222> LOCATION: 1-3, 15, 31, 40, 44, 51-53, 64, 84
 212 <223> OTHER INFORMATION: y = c or *t/u* *u*
 214 <400> SEQUENCE: 8
 -> 215 ~~yyyucgggc~~ nggggnaaa uccnaccgg yggurnnagc cctygannga yyyrguknra 60
 216 nkcyrrrrcc gacgunnna gucyggaugr ragarr 97
 218 <210> SEQ ID NO: 9
 219 <211> LENGTH: 86
 220 <212> TYPE: RNA
 221 <213> ORGANISM: Artificial Sequence
 223 <220> FEATURE:
 224 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
 225 synthetic construct
 227 <220> FEATURE:
 228 <221> NAME/KEY: misc_feature *item 5*
 229 <222> LOCATION: 52, 72
 230 <223> OTHER INFORMATION: n = a variable number of any nucleotide
 232 <220> FEATURE:
 233 <221> NAME/KEY: misc_feature
 234 <222> LOCATION: 1, 7-9, 11, 14, 16, 18, 26, 28, 32, 33, 37, 39, 42, 43, 50,
 235 51, 53-55, 62, 63, 66-69, 71, 73, 75, 76, 78, 79, 86
 236 <223> OTHER INFORMATION: n = g, a, c or *t/u* *u*
 238 <220> FEATURE:
 239 <221> NAME/KEY: misc_feature
 240 <222> LOCATION: 38, 44, 70, 77, 88
 241 <223> OTHER INFORMATION: r = a or g
 243 <220> FEATURE:
 244 <221> NAME/KEY: misc_feature
 245 <222> LOCATION: 17, 34, 60, 74

RAW SEQUENCE LISTING

DATE: 05/07/2004

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Input Set : A:\250060016U2.txt

Output Set: N:\CRF4\05072004\J669162A.raw

246 <223> OTHER INFORMATION: y = c or (t/u) M

248 <400> SEQUENCE: 9

-> 249 ncuaaunngg agnngnynga gggannggcc cnyganrnc cnrgcaacn nnnngugcy 60

250 annccnnnr nnnynnrng auragn 86

252 <210> SEQ ID NO: 10

253 <211> LENGTH: 69

254 <212> TYPE: RNA

255 <213> ORGANISM: Artificial Sequence

257 <220> FEATURE:

258 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =

259 synthetic construct

261 <220> FEATURE:

262 <221> NAME/KEY: misc_feature

263 <222> LOCATION: 1, 2, 10-17, 22, 25-31, 34, 40-46, 54-60, 68, 69

264 <223> OTHER INFORMATION: n = g, a, c or (t/u) M

266 <220> FEATURE:

267 <221> NAME/KEY: misc_feature

268 <222> LOCATION: 5, 18, 67

269 <223> OTHER INFORMATION: r = a or g

271 <220> FEATURE:

272 <221> NAME/KEY: misc_feature

273 <222> LOCATION: 65

274 <223> OTHER INFORMATION: y = c or (t/u) M

276 <400> SEQUENCE: 10

-> 277 nnucruauan nnnnnnrnu anggnnnnn ngunucuacn nnnnnccgu aaannnnnn 60

278 acuaygrnn 69

280 <210> SEQ ID NO: 11

281 <211> LENGTH: 69

282 <212> TYPE: RNA

283 <213> ORGANISM: Artificial Sequence

285 <220> FEATURE:

286 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =

287 synthetic construct

289 <220> FEATURE:

290 <221> NAME/KEY: misc_feature

291 <222> LOCATION: 1, 2, 10-17, 22, 25-31, 34, 40-46, 54-60, 68, 69

292 <223> OTHER INFORMATION: n = g, a, c or (t/u) M

294 <220> FEATURE:

295 <221> NAME/KEY: misc_feature

296 <222> LOCATION: 5, 18, 67

297 <223> OTHER INFORMATION: r = a or g

299 <220> FEATURE:

300 <221> NAME/KEY: misc_feature

301 <222> LOCATION: 65

302 <223> OTHER INFORMATION: y = c or (t/u) M

304 <400> SEQUENCE: 11

-> 305 nnucruauan nnnnnnrnu anggnnnnn ngunucuacn nnnnnccgu aaannnnnn 60

306 auuaygrnn 69

308 <210> SEQ ID NO: 12

FYI

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
 PATENT APPLICATION: US/10/669,162A

DATE: 05/07/2004
 TIME: 14:10:40

Input Set : A:\250060016U2.txt
 Output Set: N:\CRF4\05072004\J669162A.raw

Base Note:

One or more n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

I# : 3; N Pos. 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169
 I# : 3; N Pos. 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184
 I# : 3; N Pos. 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199
 I# : 3; N Pos. 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214
 I# : 3; N Pos. 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229
 I# : 3; N Pos. 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240
 I# : 5; N Pos. 39, 40, 41, 42, 43, 44, 45, 150, 151, 152, 153, 154, 155, 156
 I# : 6; N Pos. 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 18, 19, 20, 24, 25, 26, 29, 30, 33, 34, 35, 38, 40, 41, 47
 I# : 6; N Pos. 50, 54, 55, 56, 58, 59, 60, 66, 75, 76, 77, 78, 79, 85, 89, 93, 97
 I# : 7; N Pos. 1, 2, 3, 4, 5, 8, 15, 17, 18, 19, 20, 21, 22, 23, 24, 30, 31, 32, 33, 34, 36, 38
 I# : 7; N Pos. 39, 40, 41, 42, 43, 45, 46, 47, 56
 I# : 8; N Pos. 11, 17, 20, 25, 36, 37, 46, 47, 48, 58, 61, 77, 78, 79
 I# : 9; N Pos. 1, 7, 8, 9, 10, 14, 16, 18, 25, 26, 32, 33, 37, 39, 40, 43, 50, 51, 52, 53, 54
 I# : 9; N Pos. 55, 62, 63, 66, 67, 68, 69, 71, 72, 73, 75, 76, 78, 79, 86
 I# : 10; N Pos. 1, 2, 10, 11, 12, 13, 14, 15, 16, 17, 20, 25, 26, 27, 28, 29, 30, 31, 34, 40
 I# : 10; N Pos. 41, 42, 43, 44, 45, 46, 54, 55, 56, 57, 58, 59, 60, 68, 68
 I# : 11; N Pos. 1, 2, 10, 11, 12, 13, 14, 15, 16, 17, 22, 25, 26, 27, 28, 29, 30, 31, 34, 40
 I# : 11; N Pos. 41, 42, 43, 44, 45, 46, 54, 55, 56, 57, 58, 59, 60, 68, 69
 I# : 12; N Pos. 1, 13, 14, 15, 16, 17, 18, 20, 21, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 39
 I# : 12; N Pos. 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 59, 60, 61, 62, 63, 64
 I# : 12; N Pos. 65, 66, 67, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93
 I# : 12; N Pos. 94, 95, 96, 97, 98, 99, 100, 101, 107, 108, 109, 110, 111, 112, 113, 114
 I# : 12; N Pos. 115, 116, 117, 118, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131
 I# : 12; N Pos. 132, 139, 145, 151
 I# : 15; N Pos. 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52
 I# : 15; N Pos. 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
 I# : 15; N Pos. 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83
 I# : 16; N Pos. 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52
 I# : 16; N Pos. 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
 I# : 16; N Pos. 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83
 I# : 17; N Pos. 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34
 I# : 17; N Pos. 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54
 I# : 17; N Pos. 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74
 I# : 17; N Pos. 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94
 I# : 17; N Pos. 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110
 I# : 17; N Pos. 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123
 I# : 18; N Pos. 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 23, 25, 26, 27, 28, 29, 30, 31
 I# : 18; N Pos. 32, 40, 41, 42, 44, 46, 47, 48, 49, 50, 51, 53, 54, 55, 64, 65, 66
 I# : 19; N Pos. 12, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 42, 43, 44
 I# : 19; N Pos. 45, 46, 47, 48, 49, 50, 51
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 I# : 21; N Pos. 12, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38
 I# : 21; N Pos. 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58
 I# : 21; N Pos. 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/07/2004
PATENT APPLICATION: US/10/669,162A TIME: 14:10:40

Input Set : A:\250060016U2.txt
Output Set: N:\CRF4\05072004\J669162A.raw

#:21; N Pos. 79,89,94
#:22; N Pos. 19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38
#:22; N Pos. 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58
#:22; N Pos. 59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78
#:22; N Pos. 79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98
#:22; N Pos. 99,100,101,102,103,104,105,106,107,108,109,110,111,112,113
#:22; N Pos. 114,115,116,117,118,119,120,121,122,123,124,125,126,127,128

VERIFICATION SUMMARY

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70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
341 Repeated in SeqNo=3
108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
341 Repeated in SeqNo=5
144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
341 Repeated in SeqNo=6
178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
341 Repeated in SeqNo=8
249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
341 Repeated in SeqNo=9
277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
341 Repeated in SeqNo=10
305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
341 Repeated in SeqNo=11
349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
341 Repeated in SeqNo=12
384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
341 Repeated in SeqNo=15
399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
341 Repeated in SeqNo=16
414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
341 Repeated in SeqNo=17
444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
341 Repeated in SeqNo=18
458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
341 Repeated in SeqNo=21
501 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
341 Repeated in SeqNo=22
517 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
341 Repeated in SeqNo=23
533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
341 Repeated in SeqNo=24
548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
341 Repeated in SeqNo=25
563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
341 Repeated in SeqNo=26
578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
341 Repeated in SeqNo=27
594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
341 Repeated in SeqNo=28
609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
341 Repeated in SeqNo=29
625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
341 Repeated in SeqNo=30
641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0

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341 Repeated in SeqNo=31

557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0

1713 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:98